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SPRING WILD FLOWERS

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This is the first of a number of Field Museum leaflets describing some of the more interesting wild flowers of the Chicago region. The second leaflet in this series describes the wild flowers of late spring and early summer.

LIST OF BOTANICAL LEAFLETS ISSUED TO DATE

No. 1.	Figs	$ .10
No. 2.	The Coco Palm	.10
No. 3.	Wheat	.10
No. 4.	Cacao	.10
No. 5.	A Fossil Flower	.10
No. 6.	The Cannon Ball Tree (in preparation)	.10
No. 7.	Spring Wild Flowers	.25
No. 8.	Spring and Early Summer Wild Flowers	.25
No. 9.	Summer Wild Flowers	.25
No. 10.	Autumn Flowers and Fruits	.25

D. C. DAVIES
DIRECTOR

FIELD MUSEUM OF NATURAL HISTORY
CHICAGO, U. S. A.

FIELD MUSEUM OF NATURAL HISTORY
DEPARTMENT OF BOTANY
CHICAGO, 1924

LEAFLET NUMBER 7

SPRING WILD FLOWERS

Jack-in-the-Pulpit
  Preaches today,
Under the green trees
  Just over the way,
Squirrel and song-sparrow,
  High on their perch,
Hear the sweet lily-bells
  Ringing to church.

Come, hear what his reverence
  Rises to say,
In his low painted pulpit,
  This calm Sabbath day.

—John Greenleaf Whittier.

JACK'S SERMON

My flock is dwindling. Every spring my parishioners become fewer.

We appear with the birds and the squirrels to rejoice at the going away of the frost and don our best garments to celebrate the coming of spring. The humans come here to watch but not satisfied with that, carry many of us away. Unfortunately, even those kind folk who love us best and have no wish to see us disappear, do not always realize that busy plants have their work which must be attended to.

Year by year we have moved farther away hoping to be left in peace, but we cannot move very fast. Unless we are allowed to rear and nurture our seeds there will be no Easter service in our woods next year.

Let us pray that some of us may be spared.

J. M. D.

JACK-IN-THE-PULPIT

(Arisaema triphyllum)

There is no mistaking this famous "minister of the woods." The green, more or less purple-veined hood-like structure may be compared to a pulpit with its somewhat turned over tip for a canopy. There are usually two three-parted and prominently veined leaves which often overtop the pulpit.

Jack is also called Indian Turnip because of the root which the Indians used to some extent for food after removing the extremely acrid juice by cooking. In the raw state the root burns the mouth most disagreeably.

The Skunk Cabbage, notorious because of its unpleasant odor, is related to Jack-in-the-Pulpit. It has a similar "hood" or leaf-like structure that pushes itself, in very early spring, only a short distance above the boggy ground in which it grows. The foetid odor attracts various insects which often are found entrapped at the base of the "hood." Jack-in-the-Pulpit can easily be cultivated in moist shady places. Both Jack and the Skunk Cabbage are relatives of the Calla Lily. (Arum Family)

DOG'S TOOTH VIOLET. ADDER'S TONGUE

(Erythronium species*)*

The Dog's Tooth Violet may be recognized easily by its two smooth and shining flat leaves from between which rises the flower stalk that ordinarily supports only one blossom. The showy pinkish-white or yellow flower is more or less drooping but its six parts are spreading or curved backward.

This is a plant of moist woods and thickets which may be established successfully in a partially shaded garden by careful transfer of the deeply set bulbs. (Lily Family)

WILD LILY OF THE VALLEY

(Maianthemum canadense)

The Two-leaved Solomon's Seal, as this plant is more correctly called, is a low herb of moist woods and thickets. Its two (1-3) broad but pointed leaves partly encircle the often zigzag stem with their heart-shaped bases; its small white flowers form a rather dense terminal cluster or raceme about two inches long, projecting a short distance above the leaves. The blossoms neither droop nor have the fragrance of the garden Lily of the Valley.

The related False Solomon's Seal is a much larger plant with many leaves. (Lily Family)

TRILLIUM. WAKE ROBIN

(Trillium species*)*

The odd manner in which the three roundish leaves of this plant are borne together at the top of the low stout stem serves to identify it readily. The large solitary flower grows just above the foliage; in the white Trillium (pink in age) it is on a slender stalk; in the other species the blossom is purple and grows directly with the leaves.

Wake Robins are flowers of woods and thickets and, notwithstanding their name, bloom rather late. The deeply set bulb-like roots may be successfully removed to moist rich soils in the garden for blossoming the next year especially if this transplanting is done in July or August. By then the plant has replenished its reserve food-supply in the root. (Lily Family)

Courtesy Frank M. Woodruff, Curator, The Chicago Academy of Sciences.

ARETHUSA. DRAGON'S MOUTH

(Arethusa bulbosa)

The low, slender and apparently leafless stem of this orchid supports a large, solitary, gaping, rose-purple flower. The upper parts of the blossom arch over the broad lower white lip which is more or less marked with purplish blotches. After the flower opens, one narrow leaf appears at the side of the stem.

The Arethusa grows in bogs or low meadows and thickets. It is sometimes possible to cultivate it in shady rockeries. (Orchid Family)

YELLOW MOCCASIN FLOWER.

MOCCASIN FLOWER. LADY'S SLIPPER

(Cypripedium species*)*

The most prominent feature of these showy flowers of late spring is the inflated slipper-like part of the blossom. It is to this that the common names refer. There are several species.

The Yellow Moccasin Flower has three slender upper parts which are usually twisted. They are greenish-yellow, dotted and streaked with purple. This species is frequently found in rich woods.

Another sort of Cypripedium is the Showy Moccasin Flower which grows in swamps or wet mossy woods. It is quite distinct in shape and color, the "slipper" being white and crimson striped; the other parts white and broad and short.

There is also the Stemless Moccasin Flower of swamp borders or dryish woods. The stalk that bears the solitary drooping blossom has no leaves. The "slipper" of this fragrant flower is crimson-pink or rarely white; the other three parts are a dull greenish-purple color. (Orchid Family)

"Ten thousand may look at a Lady's Slipper",—how many may pick it?

ASARABACCA. WILD GINGER

(Asarum canadense)

It is the foliage of this plant as it occurs in patches in rich woods that is admired rather than the relatively inconspicuous flowers. The large, softly hairy, kidney-shaped leaves arise in pairs from creeping roots that have a ginger flavor.

Near the ground, at the base of each pair of leaves, is a solitary blossom. This is bell-shaped and consists of three parts more or less sharply pointed and chocolate-brown or purplish within. (Birthroot Fam.)

SPRING BEAUTY

(Claytonia virginica)

The plants of the Spring Beauty are inclined to grow together in groups, so as to form "carpets" in meadows or open moist woods. They are slender succulent herbs, 6-12 inches high, and are usually unbranched. The stems rise from a small deeply set tuber (bulb) and at about their middle bear two rather narrow opposite leaves.

The flowers, which may number as many as fifteen, are borne in an open, gradually lengthening, cluster and are white or pink with darker pink veins. (Purslane Family)

RUE ANEMONE

(Anemonella thalictroides)

The slender 4-10 inch high stem of the Rue Anemone arises from a cluster of thickened roots and bears at its summit, in a loose arrangement, the white flowers, which are ½-1 inch broad. Just beneath the flowers there are several more or less egg-shaped little leaves which are borne on weak stalks.

This dainty perennial is a native of woods. It is cultivated to some extent, forming "carpets of great beauty" when the plants are left undisturbed for a period of years.

The Wood Anemone is a related wild flower that resembles this plant but its blossoms are solitary and the leaves of the stem are 3-5 parted. (Crowfoot Family)

HEPATICA

(Hepatica triloba)

A low stemless perennial of the woodlands, the Hepatica shares with the Mayflower the honors for earliest flowering. Its leathery heart-shaped leaves with three roundish lobes lie flat on the ground and remain green during the winter. The new leaves, that are to serve the plant for another year, appear later than the flowers, which are borne singly on slender silky-hairy stalks, 2-5 inches long. The flowers, which are about ½ inch across, vary in color from white or pinkish to pale blue or deep violet. They droop and close at night.

The Hepatica is cultivated successfully when it is left undisturbed from year to year in rich, well-drained loam and mulched only with well-rotted leaf-mold. (Crowfoot Family)

MARSH MARIGOLD

(Caltha palustris)

The flowers of the Marsh Marigold form brilliant patches of yellow color in sunny swamps or wet meadows. It is a rather low, very smooth plant with hollow stems and round or kidney-shaped leaves. The blossoms, which are like immense buttercups, are an inch or more broad. Sometimes this plant is incorrectly called "Cowslips," especially when gathered before flowering for a pot-herb.

The Buttercup, of which there are several kinds, is a relative of the Marsh Marigold, but the yellow blossoms are much smaller. (Crowfoot Family)

COLUMBINE

(Aquilegia canadensis)

Our red and yellow Columbine, sometimes wrongly called "Honeysuckle," has the same five peculiar spurs that distinguish the well-known, variously colored garden Columbine which is a native of Europe. Colorado has designated her wild blue and white species as the state flower.

The blossoms are inverted so that the spurs point upward. The nectar secreted in their tips is thereby protected from the rain. Often a bumble bee may be seen crowding his way into the opening of the spur to obtain the nectar by reaching it with his long tongue; or humming birds may be observed inserting their beaks for the same purpose.

The Columbine flowers should be picked with restraint. As the plant often grows in shallow soils on wooded rock-outcrops, where it is readily uprooted, its perpetuation is dependent upon its maturing seeds. (Crowfoot Family)

DUTCHMAN'S BREECHES

(Dicentra Cucullaria)

The name of this delicate plant of rich woods was suggested by the odd shape of its flowers. The two divergent and slightly inflated spurs of the drooping yellow-tipped blossoms are white and point upward. The "breeches," therefore, are inverted.

The few to several flowers are arranged in a row along the upper part of the slender stem which rises only a few inches above the leaves. These are finely divided into many parts and are closely clustered about the bases of the flower-stalks.

The root of the Dutchman's Breeches consists of a scaly bulb or a number of grain-like bulbs. If their natural woodland habitat is reproduced as regards shade and soil they will grow and blossom from year to year in cultivation. The admired Bleeding Heart of gardens is a relative of our wild plant. (Fumitory Family)

MAY APPLE. MANDRAKE

(Podophyllum peltatum)

This plant has two kinds of stems; one is flowerless and bears at its summit a round, 7-9-lobed or -parted leaf, so that it suggests an umbrella; the other stem usually has two one-sided and parted leaves from the fork of which is borne the solitary white flower. The drooping blossom is about 2 inches broad. The umbrella-like leaves, which may measure a foot in diameter, are more conspicuous, however, than the flowers.

The May Apple usually grows in wet rich woods in patches of considerable extent. The large fleshy fruit ripens in July and children enjoy its sweet but slightly acid flavor that many older folk consider disagreeable. (Barberry Family)

Photograph by Dr. C. F. Millspaugh.

MAY APPLES IN FOREST PRESERVE.

BLOODROOT

(Sanguinaria canadensis)

It is easy to recognize the common Bloodroot, one of the earliest flowers in open rich woods. The bud, as it rises from the ground is enfolded by the single pale-green young leaf. As the large white flower expands and opens the lobed leaf may still partially enclose the stalk.

The plants have prostrate or creeping roots that exude, when broken, a milky orange-red juice,—whence the common name. This sap has been used as a dye, especially by the Indians, who employed it also as a body-paint. (Poppy Family)

TOOTHWORT. PEPPER-ROOT

(Dentaria species*)*

This low perennial herb of moist woods may be known by its rather compact often drooping cluster of small white or pink flowers borne a short distance above the stem leaves.

There are several kinds of Pepper-roots. The Cut-leaved sort has three stem-leaves which are divided into five parts, usually strongly toothed along the edges. The creeping roots of this species bear bulb-like thickenings at intervals. The leaves of the Two-leaved kind have only three parts and the slender roots are without tuberous swellings. The latter are crisp and suggest in taste the related Water Cress. (Mustard Family)

BITTER CRESS. SPRING CRESS

(Cardamine Douglasii)

This Cress of rich low woods has a slender upright leafy stem bearing at its summit several rather showy and crowded rose-purple or white flowers. The leaves are usually egg-shaped and are placed at more or less irregular intervals along the stalk which varies from six inches to a foot high or more.

Sometimes this plant is called Cuckoo Flower. This name is more properly applied to another kind of Cress similar to the Bitter Cress but with leaves divided into several very slender parts. The Cuckoo Flower grows in wet places or bogs. (Mustard Family)

JUNE BERRY. SHAD BUSH

(Amelanchier canadensis)

This shrub or small tree of more or less open and usually dry lands is covered before the leaves are grown, with drooping racemes (i.e., sort of elongated clusters) of white somewhat pink-edged flowers. The long (½-1 in.) narrow petals readily distinguish the June, or Service Berry as it is also known, from other flowering shrubs. Usually its red-black or purplish fruits are ripe by June. It is said that pemmican of the Indians was made of dried powdered buffalo or deer meat mixed with the similarly prepared June- or blue-berries. The mixture was stirred into boiling fat and upon cooling was moulded into cakes.

June Berry wood, known as "lance wood," is very hard and is used considerably for tool and umbrella handles. (Rose Family)

WILD GERANIUM. CRANE'S BILL

(Geranium maculatum)

The wild Geranium is a rather frequent perennial in more or less open woods or fields. Its five pink-lavender petals are ½-¾ inch long; its leaves usually have five wedge-shaped divisions that are more or less cut or lobed at their ends. The beak-like seed-pods, which resemble those of the cultivated Geranium, perhaps suggested one of its names. When the pods are dry they spring open with such force that the ripe seeds are thrown some distance.

According to an Arab legend the Geranium originally was a Mallow. Then once upon a time Mohammed, after washing his shirt, laid it upon the Mallow to dry. The plant felt this distinction so deeply that it blushed and turned into a Geranium! (Geranium Family)

YELLOW VIOLET.

VIOLET

(Viola species*)*

It is interesting to see how many kinds of violets can be found and named during a season. There are many species that ordinarily escape notice.

BLUE MARSH VIOLET.

Probably the most common in early spring are the Blue Marsh Violet, the Blue Wooly Violet and a Yellow Violet. The first, as its name indicates, grows in wet places. It is smooth and its leaves are finely scalloped along the edges. The Wooly Violet also has blue flowers but the leaves are covered on the under surface with fine hairs. The yellow-flowered kind grows in dry rich woods and is a stemmed violet; that is, some of the leaves and flowers are borne on a stem instead of directly at the ground as in most violets.

The violet is the state flower of Illinois, also Wisconsin and Rhode Island. (Violet Family)

TRAILING ARBUTUS. MAYFLOWER

(Epigaea repens)

This is a small woody plant that is found trailing and often half-concealed among drifted dead leaves on sandy or rocky slopes. Usually it is most plentiful at the edge of woods. Its name has become well-known by repeated reference in literature to the very early appearance and charm of the spicily fragrant and pink-tinted flowers. These are in clusters at the base of each evergreen leaf.

The popularity of the Trailing Arbutus has resulted in its practical extinction near many large cities. The gathering of the wild plants for sale is entirely unnecessary since they can be cultivated by florists. (Heath Family)

SHOOTING STAR

(Dodecatheon Meadi)

The Shooting Star, or American Cowslip, as it is sometimes called, is a smooth perennial herb consisting of a basal tuft of rather narrow leaves, and a single leafless stalk at the top of which is a cluster of showy pink-purple or white flowers. The individual blossoms on slender stems have five recurved parts and the stamens are joined into a cone-like tip which gives the flowers a distinctly pointed appearance. The name, Shooting Star, therefore, is apt. The flower-form suggests a diminutive Cyclamen, the well-known hot-house pot-plant to which, indeed, our plant is related. (Primrose Family)

Courtesy Frank M. Woodruff, Curator, The Chicago Academy of Sciences.

BUCKBEAN. MARSH TREFOIL

(Menyanthes trifoliata)

A shallow shore or bog is the home of this perennial herb, which has pinkish, shaggy flowers and large clover-like leaves. The three leaflets are longer in proportion to their width than those of the clover.

The flower-stalk rises well above the foliage and toward its summit produces the several white or reddish flowers in a rather loose cluster.

The leaves of this plant are said to be used in Germany as a substitute for hops in beer-making. Its distribution is world-wide in temperate regions. (Gentian Family)

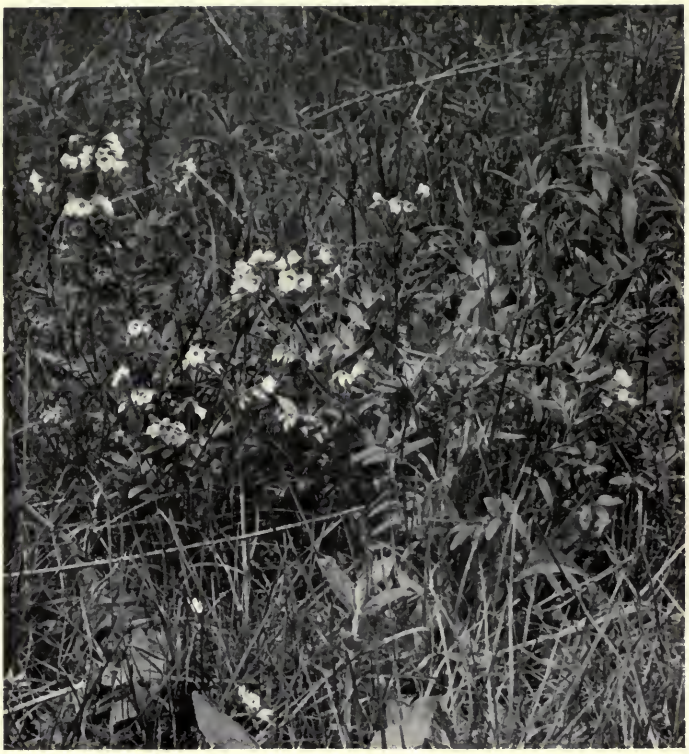
BLUE PHLOX. WILD SWEET WILLIAM

(Phlox divaricata)

Nearly everyone knows the hardy perennial Phlox used by the gardener for handsome borders in the late summer or fall. The wild blue Phlox that in the spring forms colorful patches in our moist rocky woods and elsewhere is related to these garden phloxes and has much the same sort of flower. This is a very slender tube with five spreading lobes at the opening. The color is bluish or a pale lilac.

The plant may be further identified by its lance-shaped leaves, borne in pairs, that is, one placed opposite another on the laxly growing (rarely erect) stems.

The Ground or Moss Pink is another sort of Phlox that forms mats of considerable extent in sandy fields. Its numerous flowers are pink or purplish with a darker eye. (Phlox Family)



GREEK VALERIAN. POLEMONIUM

(Polemonium reptans)

Often the name "Blue-bell" is given to this weak-stemmed and spreading perennial of open woods because of the drooping and bell-shaped blue flowers.

The Greek Valerian is a leafy plant, usually about a foot high, but sprawling in its habit of growth. The small parts of the much-divided leaves are arranged in rows along a common stalk so that the leaf-form is suggestive of a ladder. Indeed, a related garden plant is called Jacob's Ladder because of the similar arrangement of its leaves. A number of other kinds of Polemoniums are cultivated. (Phlox Family)

Courtesy Frank M. Woodruff, Curator, The Chicago Academy of Sciences.

VIRGINIA COWSLIP. BLUEBELL

(Mertensia virginica)

This rather tall (1-2 ft.) very smooth plant with pale green leaves and porcelain-blue flowers usually grows in river-woodlands where it sometimes occurs in patches of considerable extent. The more or less drooping flowers, borne near the tops of the stems, are slender tubes, flaring cup-like at the open end. Before they are fully open they are more or less pinkish.

The Forget-me-not is a relative of this plant. (Borage Family)

This is the first of a number of Field Museum leaflets dealing in a simple manner with some common or conspicuous flowers of the Chicago region. With a single exception woody plants have not been included.

J. FRANCIS MACBRIDE.

The photographs, unless otherwise credited, are by L. W. Brownell with the exception of Phlox and Polemonium by C. F. Millspaugh, Jack-in-the-Pulpit and Trillium by J. R. Millar, Dentaria and Dog's Tooth Violet by H. H. Smith.

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